

Summary of Radiological Incident Reports January 1993 to December 1999

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Note: The data contained in this report is intended for internal **LANL use only**. It is a working document of use only within LANL. The data is incomparable to any and all other organizations outside of LANL. This summary is categorized as a "working document". Contact the preparer of this summary for sources of data that can be comparable to other organizations.

CONTENTS

Summary of Radiological Incident Reports

Page No.	Description
iii	Introduction
1	1999 Summary, Radiological Incident Reports Received by ESH-12
2	Status of Radiological Incidents for 1999
3	Radiological Incident Reports, year to date
4	Radiological Incident Reports by Technical Area
5	Personal Clothing Contaminations by Technical Area
6	Skin Contaminations by Technical Area
7	Positive Nasal Swipes by Technical Area, Meeting Radiological Incident Report Criteria
8	Wound Counts by Technical Area, Less Than 0.05 nCi
9	Wound Counts by Technical Area, 0.05 nCi to 2.0 nCi
10	Wound Counts by Technical Area, Greater Than 2.0 nCi
11	Anti-C Contaminations by Technical Area
12	Area Contaminations by Technical Area – Controlled & Uncontrolled
13	Area Contaminations by Technical Area - Uncontrolled
14	Positive CAM Alarms by Technical Area
15	Negative CAM Alarms by Technical Area
16	Preliminary RIR Causes Listed in 1999
17	DOE Order 232.1, Occurrence Reports, by Technical Area

Introduction

This summary contains radiological data unique to Los Alamos National Laboratory (LANL). LANL developed the radiological incident report (RIR) as a management tool. Its purpose is as a working document to record radiological incidents that occur, but may not trigger an Occurrence Report {DOE Order 232.1, whose data are compiled by the Occurrence Reporting and Processing System (ORPS)}. As such, any “incident” causes no harm to personnel or the environment, and may only be procedural in nature. Those “occurrences” that may result in harm to personnel or the environment are reported via the ORPS. This summary report is therefore intended for internal LANL use only, even though it is available to any and all whom ask for copies. None of the data contained herein are comparable to organizations outside of LANL. The summary was developed by the ESH-12 Dose Optimization Team (metrics) as merely a means of communicating metric trends that could be of use to LANL management in its strive to achieve ALARA (as low as reasonably achievable). Unauthorized and or inappropriate use of this data outside LANL could result in changes to the report that will affect its usefulness within LANL and our attempt to improve upon the past.

The main body of data for the current year are found in the yearly summary table on page 1. All other tables and charts derive their data from this table and historical data. The RIR system is divided into four different LANL organizations. These organizations are; technical area 55 (TA-55), technical area 53 (TA-53), the chemistry and metallurgy research facility (CMR at TA-3, building 29) and the remaining sites (other than the previous three). The first year that an attempt was made to compile this data into this format was 1993. Due to low participation in 1993, any correlation of 1993 data to following year's data would be statistically inappropriate.

One note about a particular portion of this report. The “total RIR's” column in the table, *Radiological Incident Reports*, on page 3 is the actual number of RIR's written. This value will not match any other sums in this report because all report values were obtained from RIR copies received by the compiler of this report. Some of the RIR copies could still be outstanding, or there are even RIR's assigned a number and then later they are voided.

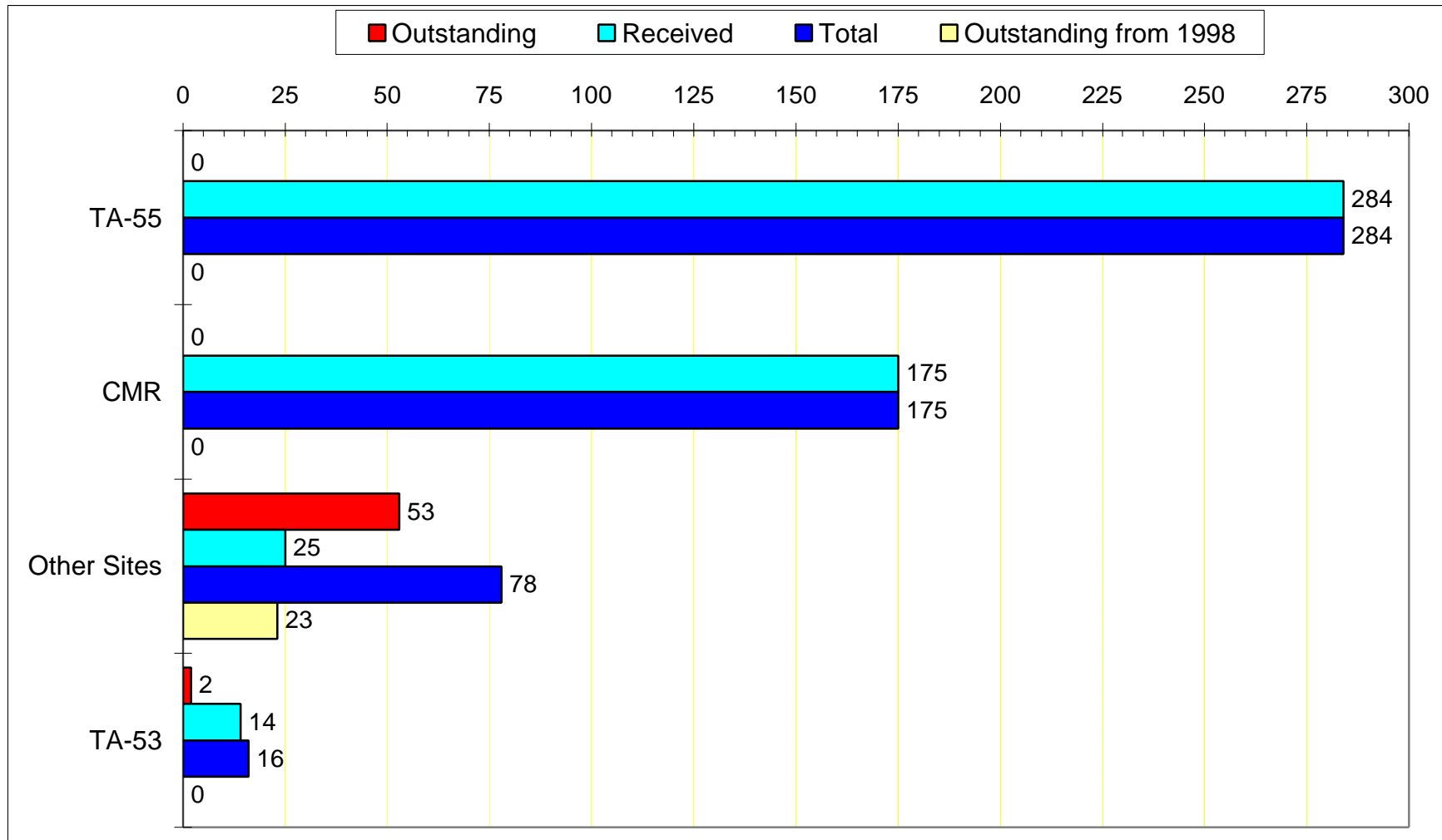
Any comments or questions should be directed to the preparer of this report as indicated on the front page.

Some Radiological Incident Reporting Criteria

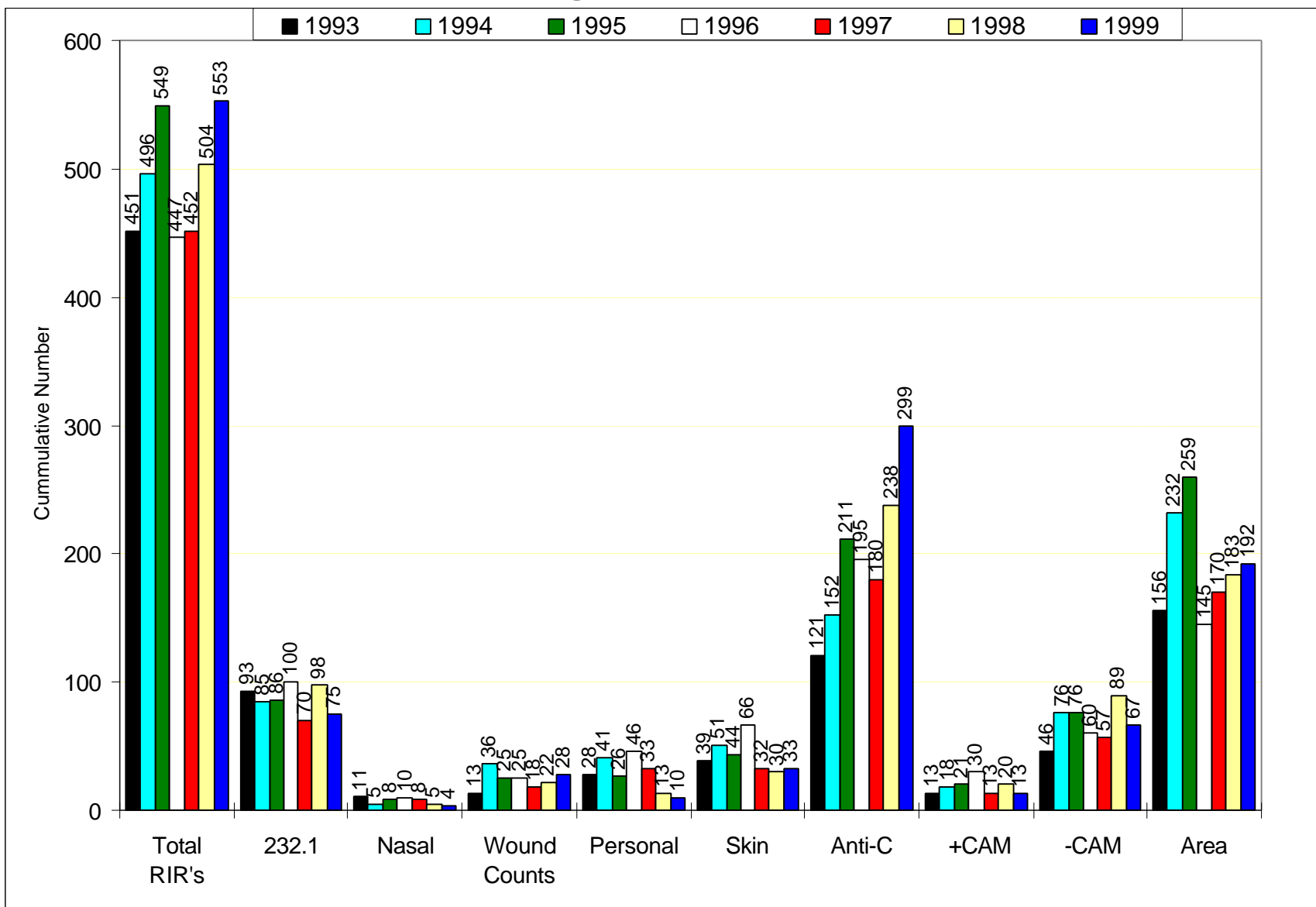
<u>Category</u>	<u>Reporting Level</u>
Nasal Swipe	alpha \geq 50 dpm (sum of both nostrils) ; beta/gamma \geq 500 dpm (sum of both nostrils)
Wound Count	Any wound count
Skin Contamination	Any detectable level
Personal/Laboratory Clothing	Any detectable level
CAM alarm	Any CAM alarm (true or false)
Protective Clothing (Anti-C) (unanticipated)	alpha \geq 1000dpm/100cm ² ; beta/gamma \geq 5000dpm/100cm ² or 0.25mR/hr

1999 SUMMARY - RADIOLOGICAL INCIDENT REPORTS RECEIVED BY ESH-12													
Location	Total RIR's	Total Occurrences 232.1	Type Of Incident										
			Nasal RIR*	Wound Counts			Pers/Lab Clothing Contam.	Skin Contam.	Anti-C Contam.	CAM		Area Contaminations	
				<0.05nCi	.05 to 2nCi	>2.0nCi				Positive	Negative	All Areas	Outside Cont. Area
TA-2	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-3(1)	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-3(2)	0	1	0	0	0	0	0	0	0	0	0	0	0
TA-3(3)	0	0	0	0	0	0	0	0	0	0	0	0	0
CMR	175	20	0	9	0	0	5	10	85	3	9	95	4
TA-8	1	0	0	0	0	0	0	0	0	0	0	1	1
TA-9	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-10	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-15	1	0	0	0	0	0	0	0	0	0	0	1	1
TA-16	3	2	0	0	0	0	0	0	0	0	0	2	1
TA-18	0	4	0	0	0	0	0	0	0	0	0	0	0
TA-21(e)	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-21(w)	1	0	0	0	0	0	0	0	0	0	0	1	1
TA-33	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-35	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-36	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-39	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-41	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-43	0	2	0	0	0	0	0	0	0	0	0	0	0
TA-46	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-48	0	3	0	0	0	0	0	0	0	0	0	0	0
TA-50	16	1	0	3	0	0	0	1	3	2	1	5	0
TA-53	14	10	2	0	0	0	3	6	3	0	1	6	2
TA-54	2	2	0	0	0	0	0	0	0	0	2	0	0
TA-55	284	30	2	16	0	0	2	16	208	8	54	80	2
TA-59	0	0	0	0	0	0	0	0	0	0	0	0	0
TA-60	1	0	0	0	0	0	0	0	0	0	0	1	1
Totals	498	75	4	28	0	0	10	33	299	13	67	192	13
Based upon 498 RIR's received out of a total of 553 RIR's generated (90%).													
Notes: TA-3(1) = bldgs 16 & 130 *sum= alpha>50dpm; beta/gamma>500dpm TA-21(e) = bldgs 152, 155 & 209 TA-3(2) = bldgs 39, 102 & 66 TA-21(w) = all others at TA-21 TA-3(3) = all others exclusive of CMR													

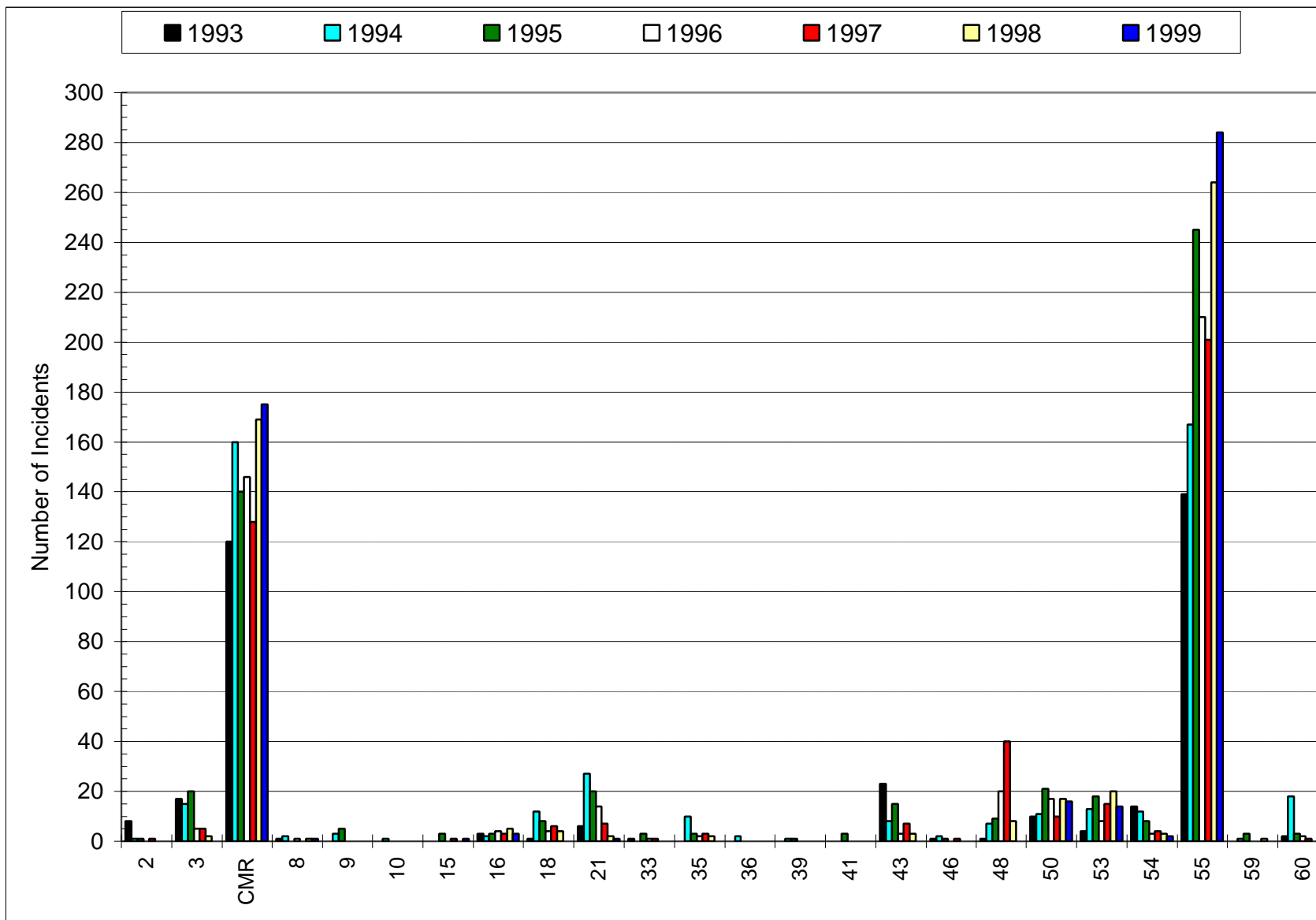
Status of Radiological Incident Reports for 1999



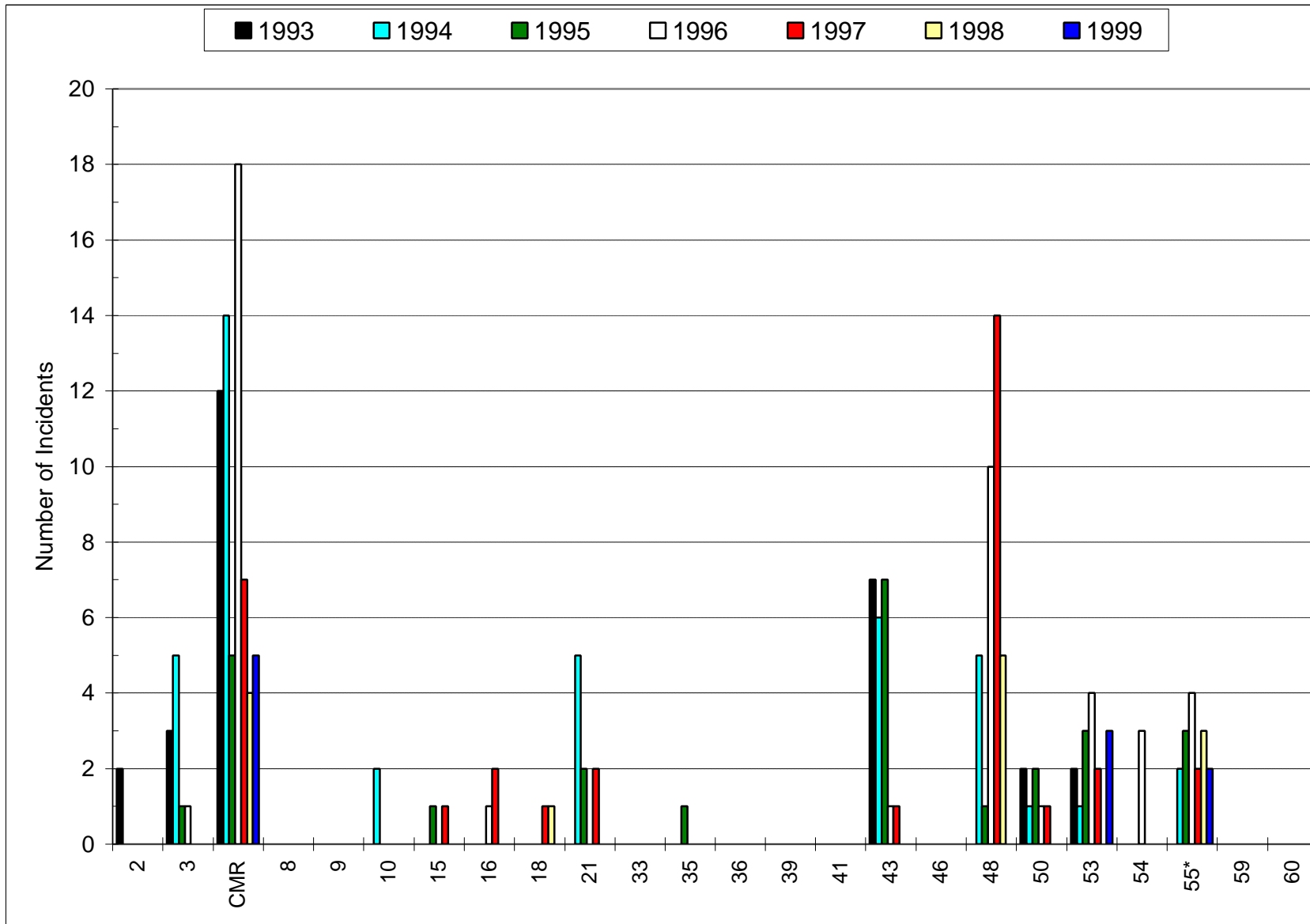
Radiological Incident Reports



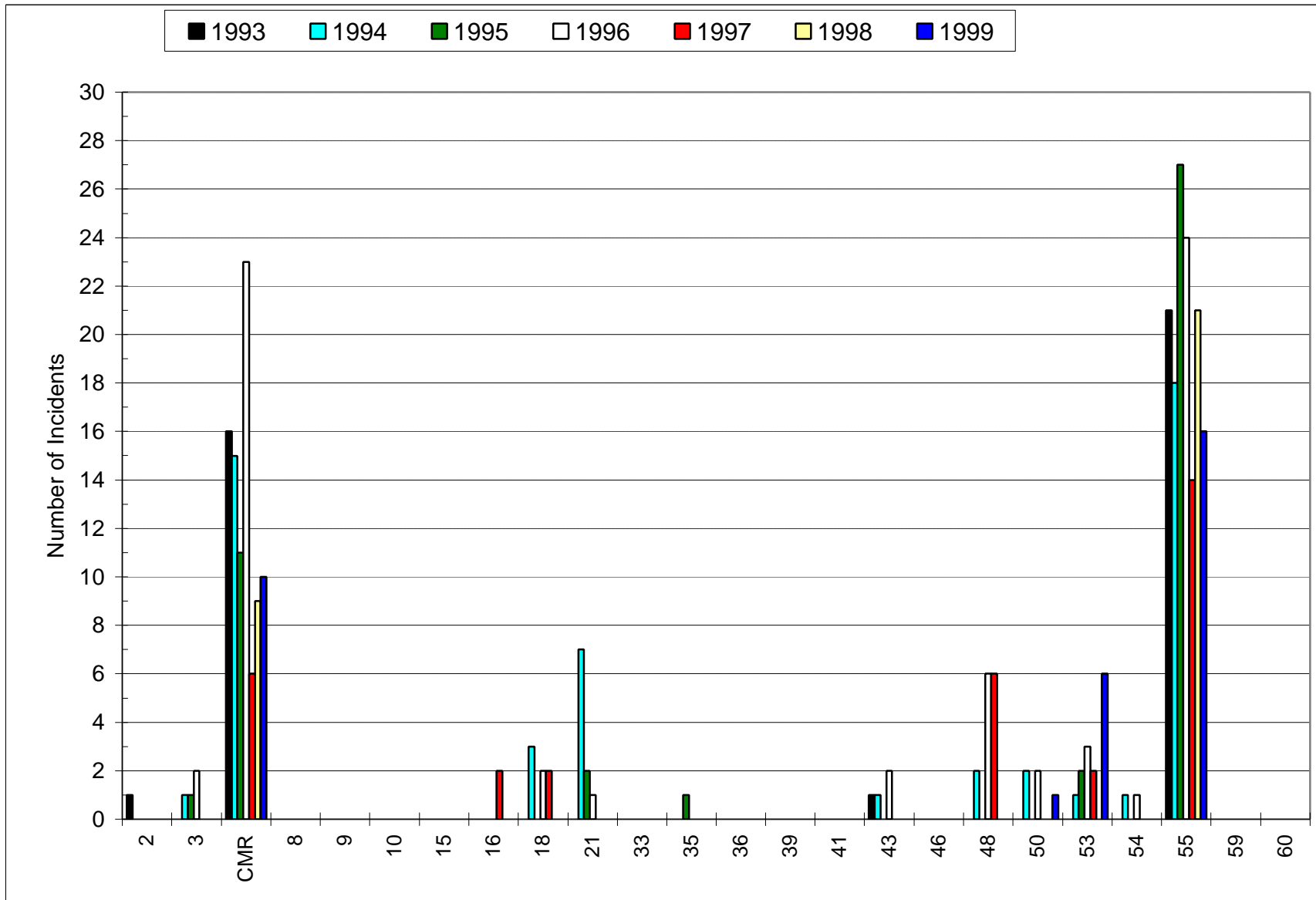
Radiological Incident Reports by Technical Area



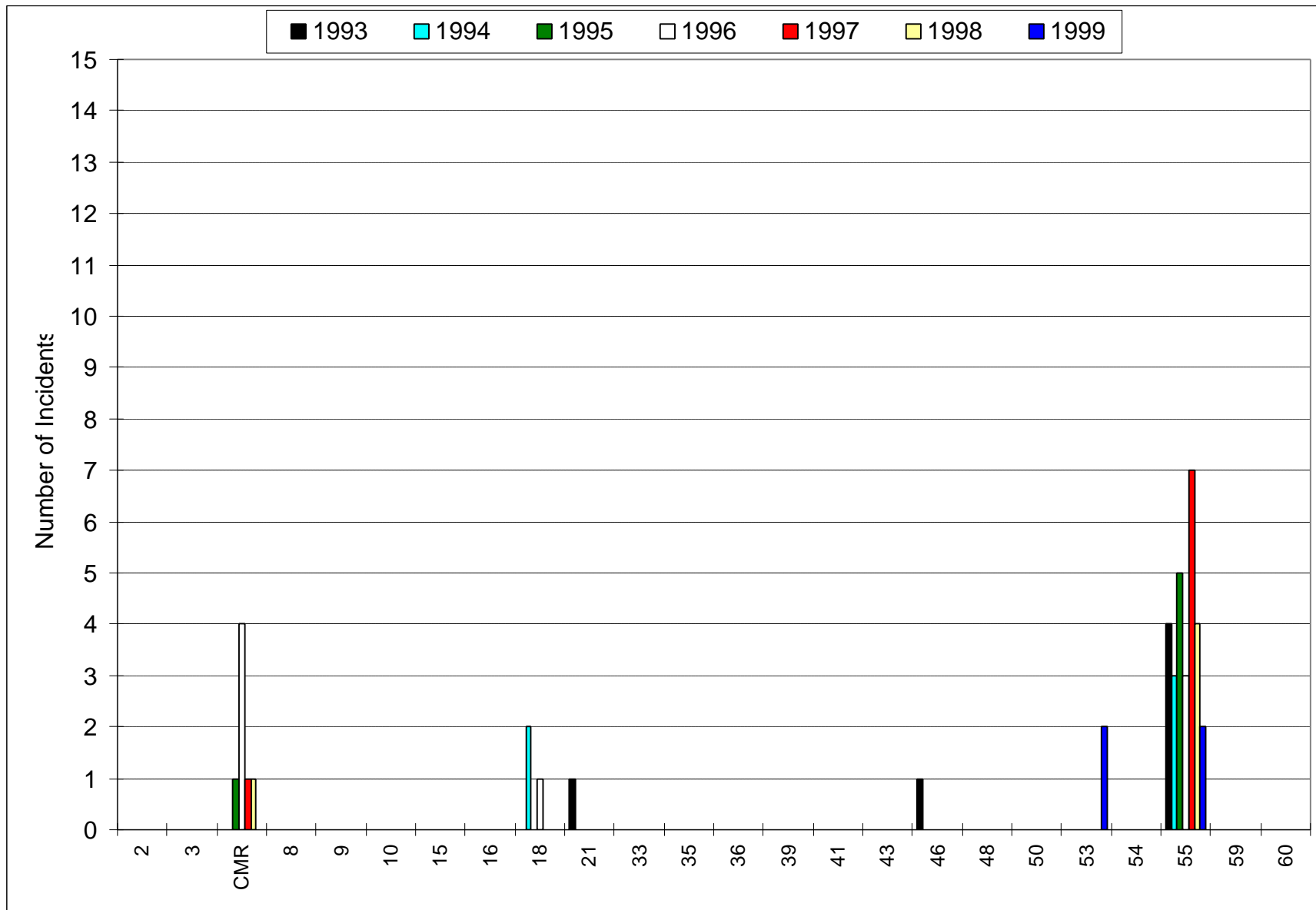
Personal/LANL-Issued Clothing Contaminations by Technical Area



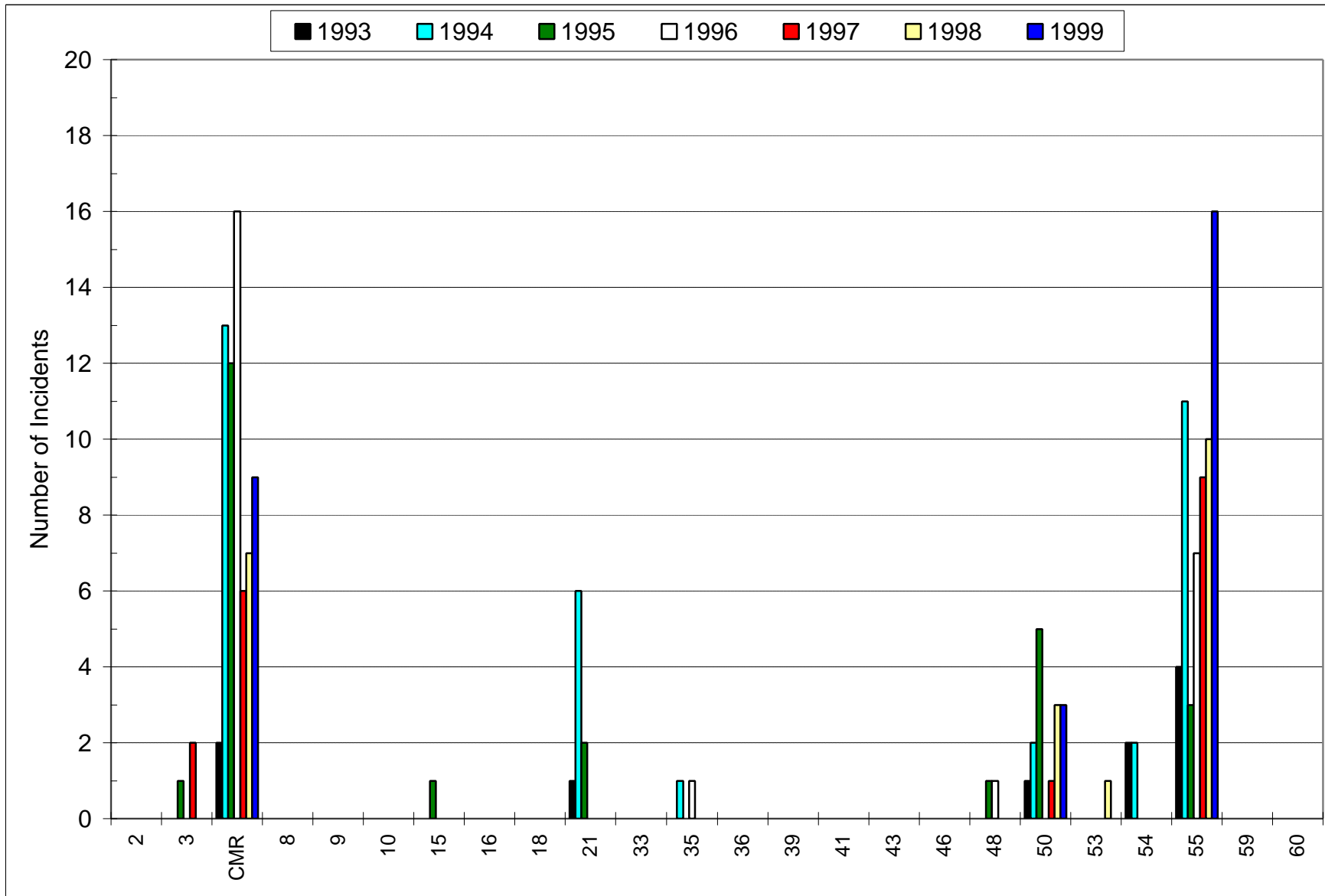
Skin Contaminations by Technical Area



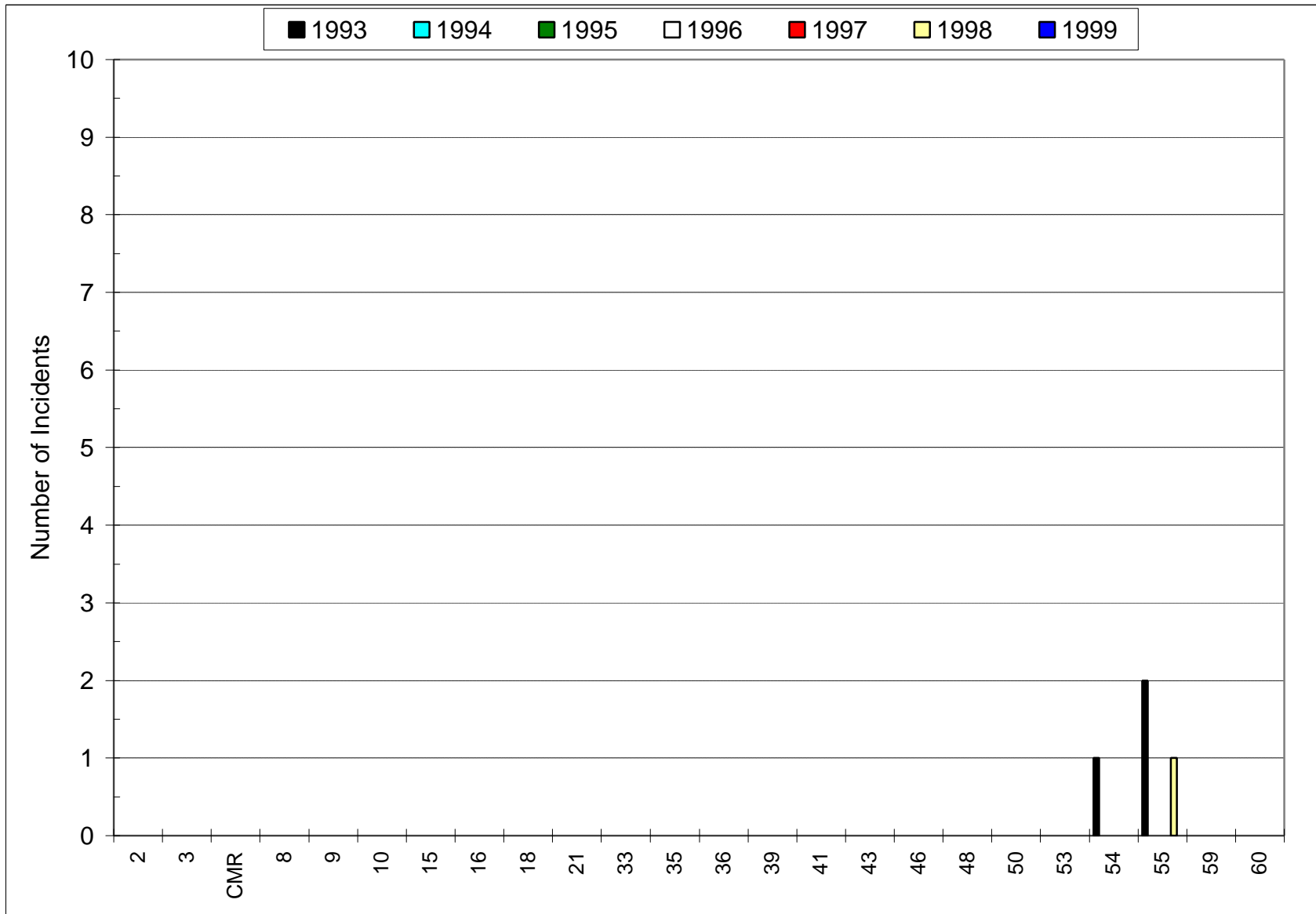
Positive Nasal Swipes by Technical Area



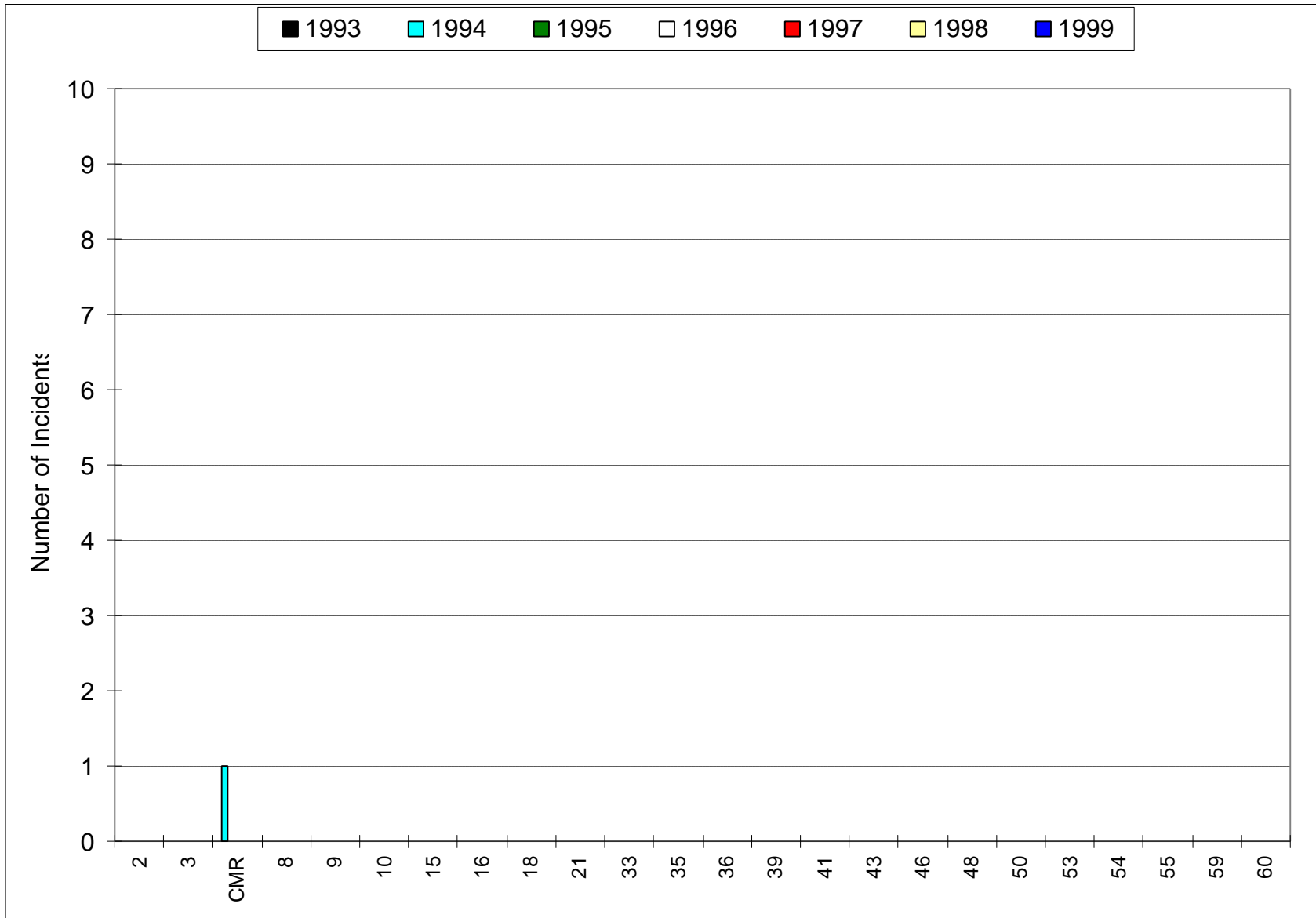
Wound Counts by Technical Area – less than 0.05nCi



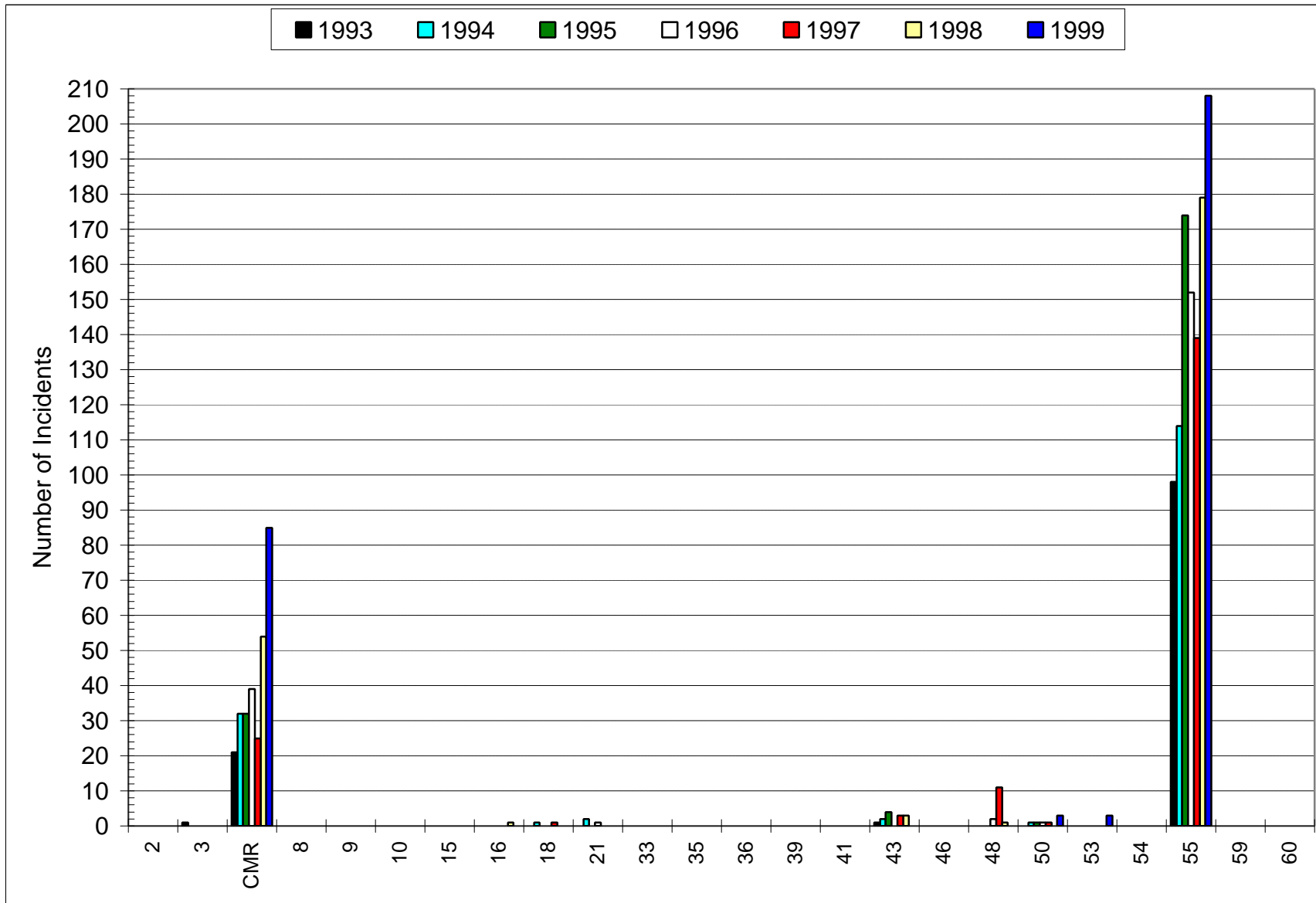
Wound Counts by Technical Area – 0.05nCi to 2.0 nCi



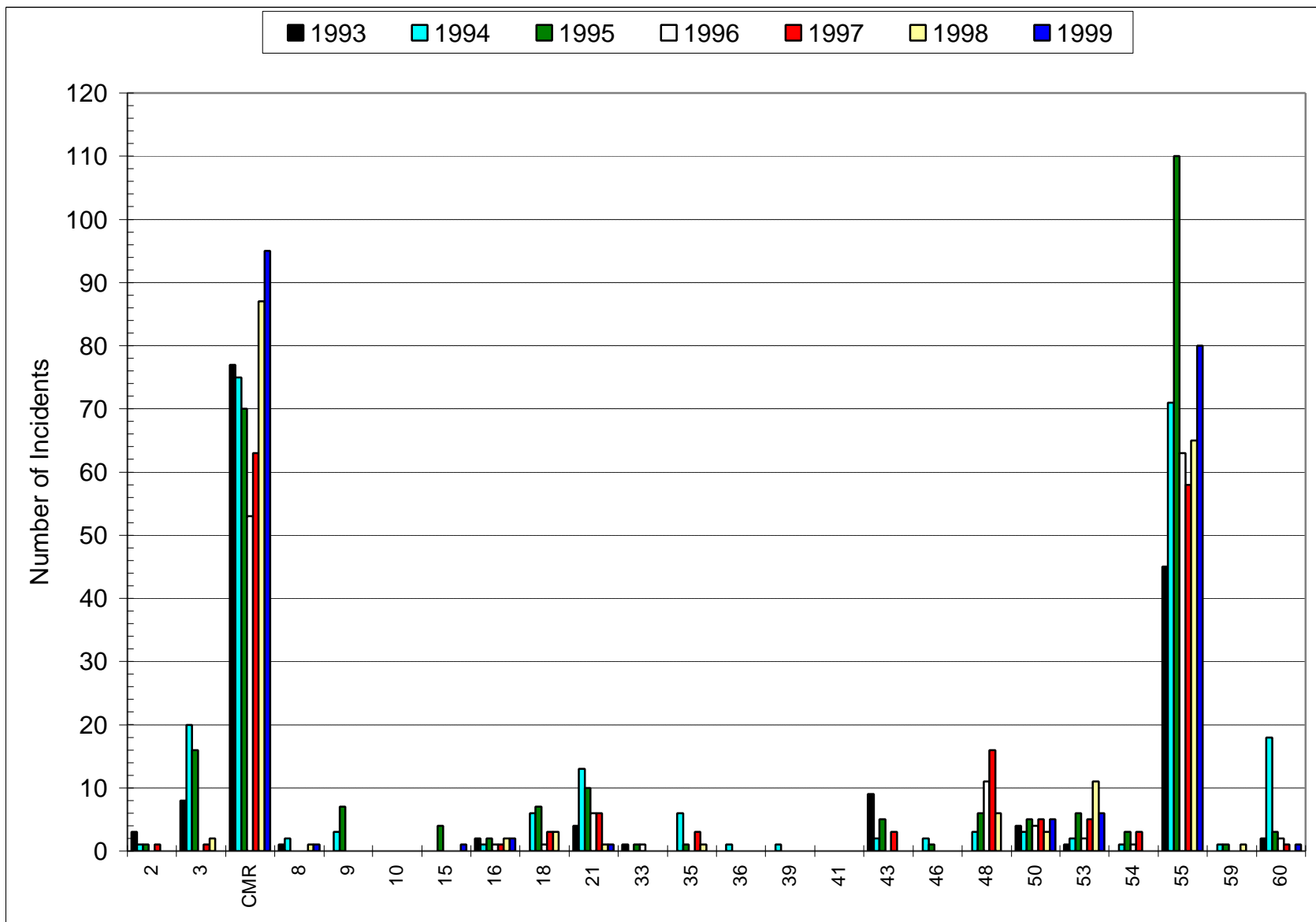
Wound Counts by Technical Area – greater than 2.0nCi



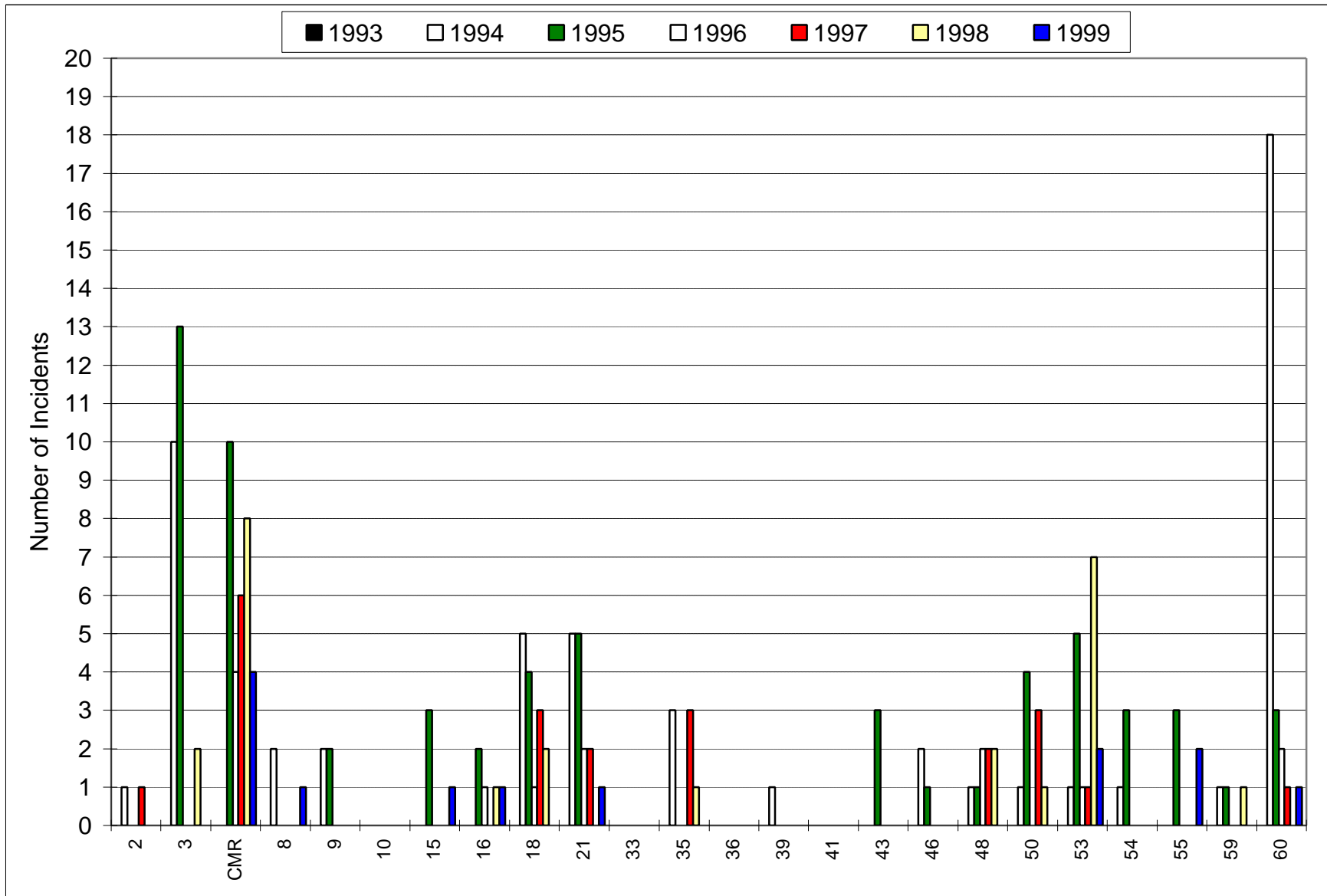
Anti-C Contaminations by Technical Area



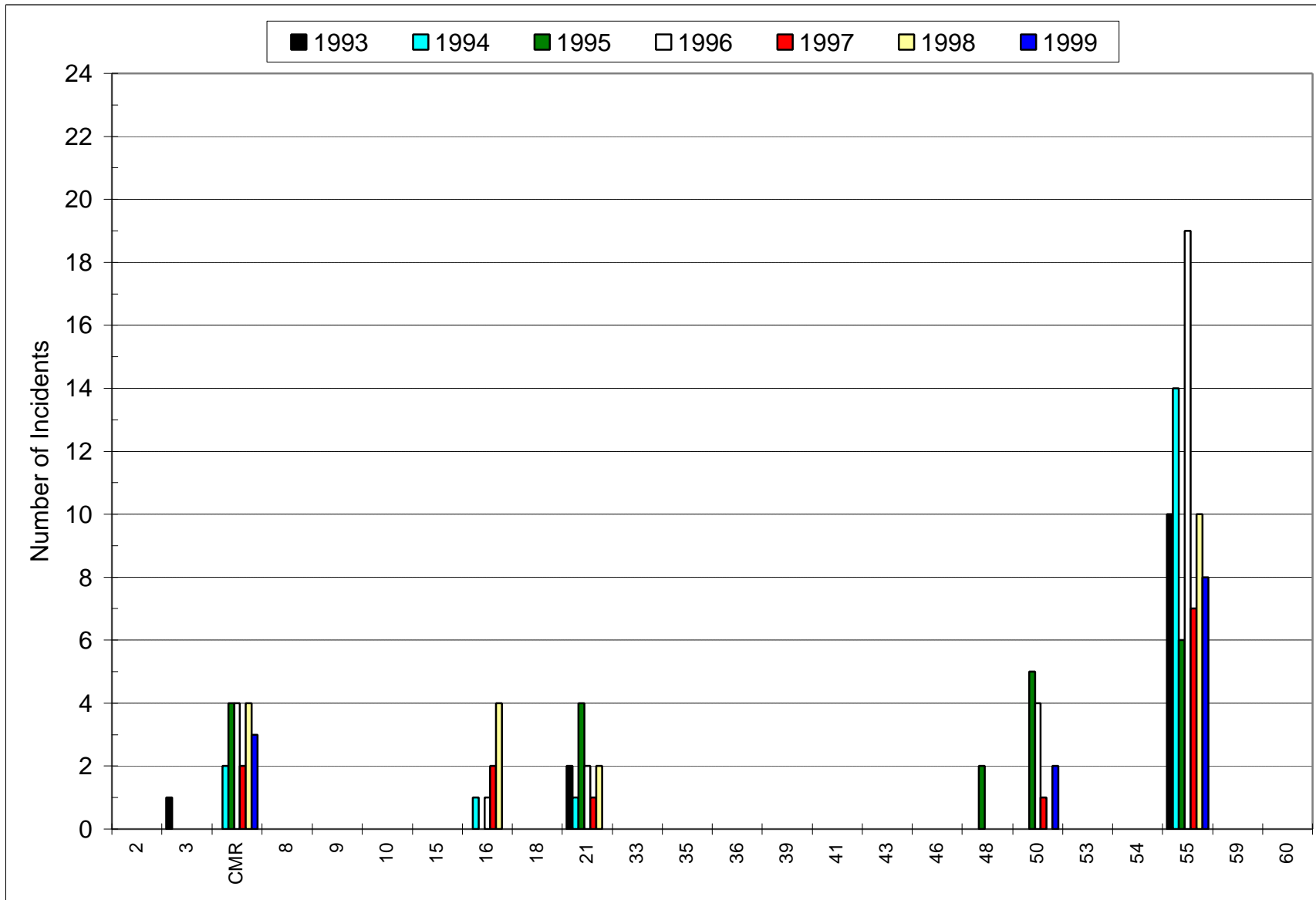
Area Contaminations by Technical Area – Controlled & Uncontrolled



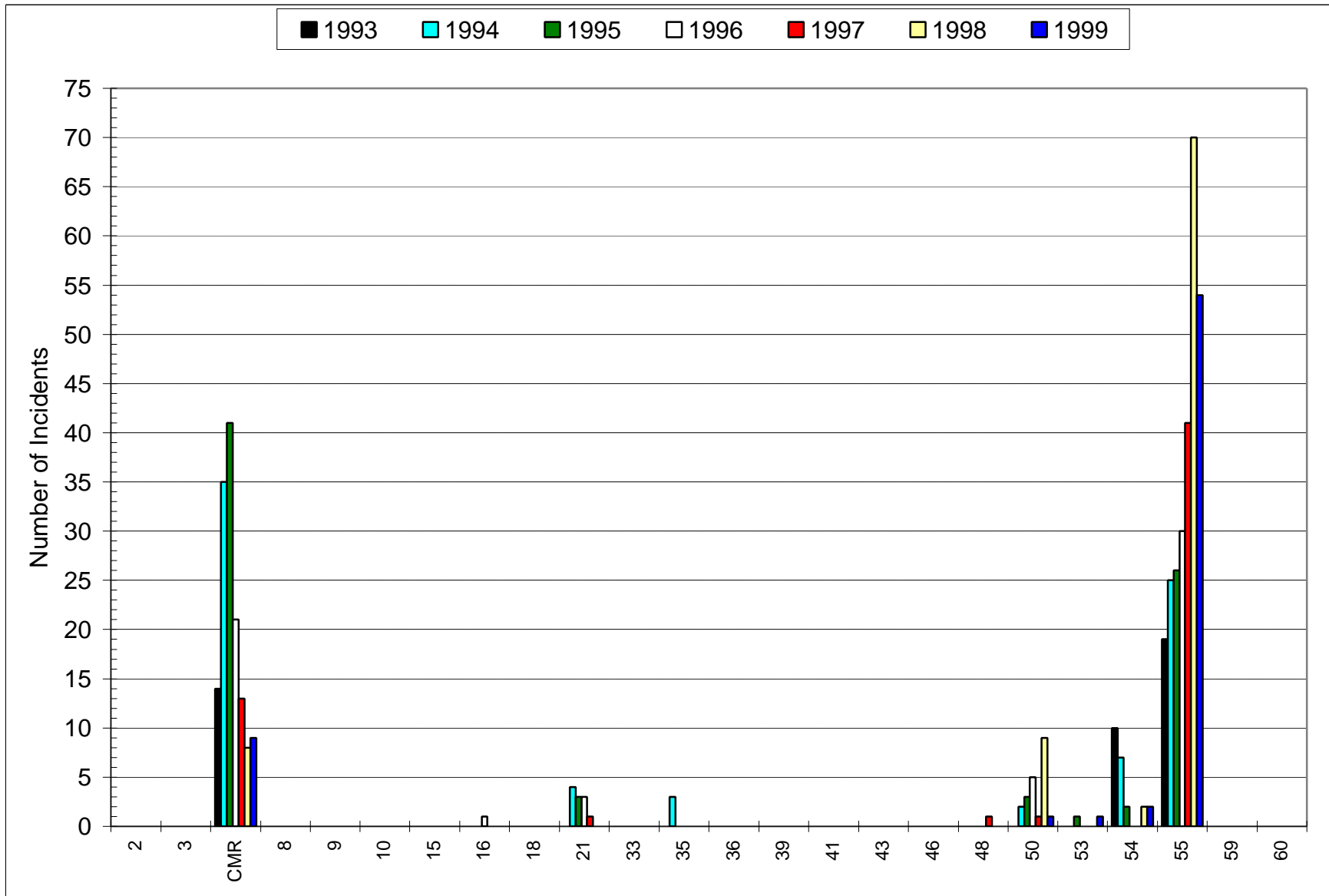
Area Contaminations by Technical Area – Uncontrolled



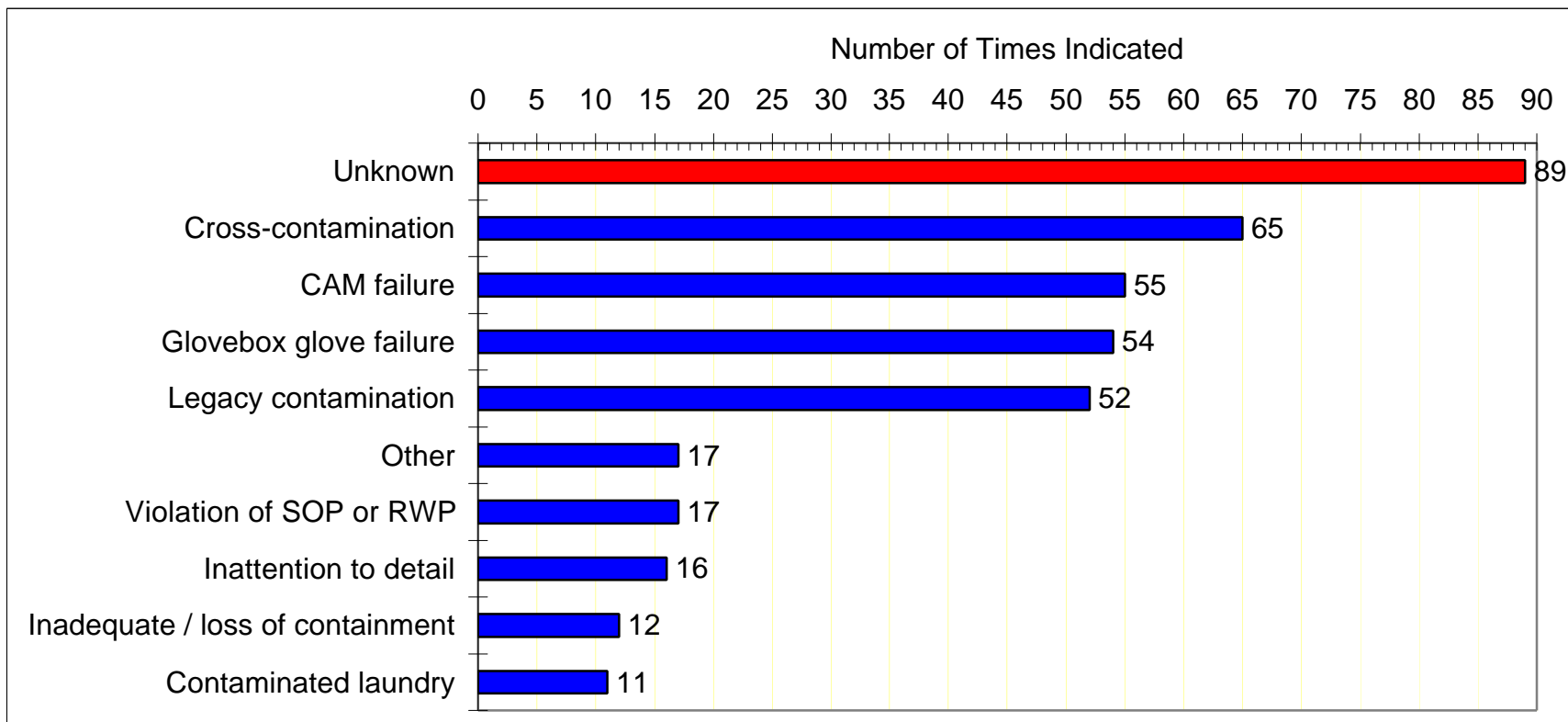
Positive CAM Alarms by Technical Area



Negative CAM Alarms by Technical Area



Preliminary RIR Causes Listed in Calendar Year 1999



DOE Order 232.1, Occurrence Reports, by Technical Area

